

Status of the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Previously Presented) A method of providing automated document retention for an electronic document comprising:

(a) assigning a document retention policy to the electronic document, the document retention policy being based on a recurring cut-off retention schedule; and

(b) cryptographically associating the document retention policy with the electronic document.

2. (Previously Presented) The method as recited in claim 1, further comprising:

(c) cryptographically preventing access to the electronic document in accordance with the document retention policy when a document retention period for the electronic document has been exceeded.

3. (Previously Presented) The method as recited in claim 1, wherein:

step (b) utilizes a cryptographic key to associate the document retention policy, and

the document retention policy specifies a document retention period and a cut-off period.

4. (Previously Presented) The method as recited in claim 3, wherein the document retention policy specifies a document retention period that expires a predetermined period of time after the cut-off period.

5. (Previously Presented) The method as recited in claim 3, wherein the cut-off period corresponds to a maximum off-line period of a client.

6. (Previously Presented) The method as recited in claim 1, wherein said associating comprises acquiring a cryptographic key from a server over a network, the cryptographic key being used to associate the document retention policy.

7. (Previously Presented) The method as recited in claim 6, further comprising:

(c) deactivating the cryptographic key when a document retention period has expired, thereby preventing further access to the electronic document.

8. (Previously Presented) The method as recited in claim 7, wherein:
said associating operates to utilize a cryptographic key to associate the document retention policy, and
the document retention policy specifies a document retention period and a cut-off period.

9. (Previously Presented) The method as recited in claim 8, wherein the document retention policy specifies a document retention period that expires a predetermined period of time after the cut-off period.

10. (Previously Presented) A method comprising:
determining whether a cut-off period for a document retention key has been reached;
generating a next document retention key to be used to encrypt an electronic document during a next cut-off period, the next document retention key having a document retention period associated therewith; and
notifying a client of the next document retention key.

11. (Previously Presented) The method as recited in claim 10, further comprising:
deactivating the prior document retention key when the prior document retention key is to be deactivated.

12. (Previously Presented) The method as recited in claim 11, wherein the document retention period is a predetermined duration of time following the end of the next cut-off period.

13. (Previously Presented) A method for restricting access to an electronic document, said method comprising:

encrypting a data portion of an electronic document using a document key to produce an encrypted data portion;

using a retention access key to associate a document retention policy with the electronic document;

encrypting the document key using the retention access key to produce an encrypted document key, the retention access key being usable for said encrypting during a cut-off period of a recurring cut-off retention schedule;

forming a secured electronic document from at least the encrypted data portion and the encrypted document key; and

storing the secured electronic document.

14. (Previously Presented) The method as recited in claim 13, wherein the retention access key is a public retention access key.

15. (Previously Presented) The method as recited in claim 13, wherein the document retention policy specifies a document retention period that expires a predetermined period of time after the cut-off period.

16. (Previously Presented) A method for accessing a secured electronic document, the secured electronic document having at least a header portion and a data portion, comprising:

obtaining a retention access key, the retention access key being used to associate a document retention period of a document retention policy with the electronic

document, the retention access key being usable during the document retention period following a cut-off period of a recurring cut-off retention schedule;

obtaining an encrypted document key from the header portion of the secured electronic document;

decrypting the encrypted document key using the retention access key to produce a document key; and

decrypting an encrypted data portion of the secured electronic document using the document key to produce a data portion.

17. (Previously Presented) The method as recited in claim 16, wherein the retention access key is identified by an indicator within a header portion of the secured electronic document.

18. (Previously Presented) The method as recited in claim 16, wherein the retention access key is a private retention access key.

19. (Previously Presented) The method as recited in claim 16, wherein said obtaining obtains the retention access key being obtained from a server.

20. (Previously Presented) The method as recited in claim 16, wherein the document retention period is a predetermined period of time after the occurrence of the cut-off period.

21. (Previously Presented) A computer readable medium including at least computer program code for providing document retention for an electronic document, said computer readable medium comprising:

computer program code for assigning a document retention policy to the electronic document, the document retention policy being based on a recurring cut-off retention schedule; and

computer program code for cryptographically associating the document retention policy with the electronic document.

22. (Previously Presented) The computer readable medium as recited in claim 21, wherein said computer readable medium further comprises:

computer program code for cryptographically preventing access to the electronic document in accordance with the document retention policy when a document retention period for the electronic document has been exceeded.

23. (Previously Presented) The computer readable medium as recited in claim 21,

wherein said computer program code for cryptographically associates operates to utilize a cryptographic key to associate the document retention policy, and

wherein the document retention policy specifies a document retention period and a cutoff period.

24. (Previously Presented) The computer readable medium as recited in claim 23, wherein the document retention policy specifies a document retention period that expires a predetermined period of time after the cut-off period.

25. (Previously Presented) A file security system for restricting access to an electronic file, comprising:

a key store that stores a plurality of cryptographic key pairs, each of the cryptographic key pairs including a public key and a private key, at least one of the cryptographic key pairs pertaining to a retention policy, the retention policy having a document retention period and a cut-off period; and

an access manager operatively connected to said key store, said access manager configured to make available, for each of the cut-off periods, a different one of the public keys of the at least one of the cryptographic key pairs, and to determine whether the private key of the at least one of the cryptographic key pairs pertaining to the retention policy is permitted to be provided to a requestor based on whether the document retention period following the cut-off period has expired,

wherein the requestor requires the private key of the at least one of the cryptographic key pairs pertaining to the retention policy to access a secured electronic file, and wherein the secured electronic file was previously secured using the public key of the at least one of the cryptographic key pairs pertaining to the retention policy, and at the time the electronic file was so secured, the public key was within the cut-off period and available for use.